

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for treating prostate and breast cancer, comprising administering to a patient that has prostate or breast cancer a protein that comprises a receptor-antagonizing domain and a positive immunomodulator domain, wherein the receptor-antagonizing domain comprises SEQ ID NO: 35 but has ~~is a prolactin-antagonist domain that comprises~~ an amino acid substitution at position 129 ~~in hPRL~~, and the positive immunomodulator domain is a cytokine selected from the group consisting of IL-2, IL-12, and IFN γ .

2-3. (Canceled)

4. (Currently Amended) The method according to claim 1 ~~3~~, wherein the ~~interleukin~~ cytokine is ~~an~~ IL-2.

5. (Currently Amended) The method according to claim 1 ~~3~~, wherein the ~~positive immunomodulator domain~~ cytokine is ~~an~~ IL-12.

6. (Currently Amended) The method according to claim 1 ~~3~~, wherein the ~~positive immunomodulator domain~~ cytokine is IFN γ .

7-21. (Canceled)

22. (Previously Presented) The method according to claim 1, wherein cells of the cancer overexpress a prolactin receptor at levels greater than in normal, healthy cells.

23-27. (Canceled)

28. (Currently Amended) A method for inducing an immune response in an individual that has cancerous prostate or breast cells, comprising administering to said individual a protein comprising (i) a prolactin-antagonist domain comprising SEQ ID NO: 35 but has ~~that comprises~~ an amino acid substitution at position 129 ~~in hPRL~~, and (ii) an

immunomodulatory domain, wherein said immunomodulatory domain is a cytokine selected from the group consisting of IL-2, IL-12, and IFN γ .

29. (Previously Presented) The method of claim 28, wherein said prolactin-antagonist domain comprises a protein consisting essentially of the amino acid sequence of SEQ ID NO. 34.

30-33. (Canceled)

34. (Previously Presented) The method of claim 28, wherein the amino acid at position 129 is arginine.

35. (Previously Presented) The method of claim 28, wherein said cancerous cells express prolactin receptors at a level greater than that of normal, healthy cells.

36. (Canceled)

37. (Currently Amended) The method of claim 28, wherein said ~~immunomodulatory domain~~ cytokine is IL-2.

38. (Currently Amended) The method of claim 28, wherein said ~~immunomodulatory domain~~ cytokine is IL-12.

39. (Currently Amended) The method of claim 28, wherein said ~~immunomodulatory domain~~ cytokine is IFN γ .

40-44. (Canceled)

45. (Currently Amended) A method for inducing an immune response in an individual that has cancerous prostate or breast cells, comprising administering to said individual a protein comprising (i) a domain that binds to a receptor expressed on a cancer cell altering the function of said receptor, and (ii) another domain that elicits an immune response that is targeted to said cancer cell, wherein the domain that binds to a receptor expressed on a cancer cell is a prolactin antagonist domain comprising SEQ ID NO: 35 but ~~has that comprises~~ an amino acid substitution at position 129, in hPRL and the domain that

elicits an immune response is a cytokine selected from the group consisting of IL-2, IL-12, and IFN γ .

46. (Previously Presented) The method of claim 45, wherein the prolactin-antagonist domain has an arginine at position 129.

47. (Currently Amended) The method of claim 46, wherein the prolactin-antagonist domain comprises ~~the protein of~~ SEQ ID NO. 34.

48-50. (Canceled)

51. (Currently Amended) A method for treating prostate or breast cancer, comprising administering to a patient that has prostate or breast cancer a protein that comprises a receptor-antagonizing domain and a positive immunomodulator domain, wherein the receptor-antagonizing domain is a growth hormone antagonist domain that comprises an amino acid substitution at position 120 in hGH, and wherein the positive immunomodulator domain is a cytokine selected from the group consisting of IL-2, IL-12, and IFN γ .

52. (Currently Amended) The method according to claim 51, wherein the ~~interleukin~~ cytokine is an IL-2.

53. (Currently Amended) The method according to claim 51, wherein the ~~positive immunomodulator domain~~ cytokine is an IL-12.

54. (Currently Amended) The method according to claim 51, wherein the ~~positive immunomodulator domain~~ cytokine is IFN γ .

55-60. (Canceled)

61. (Currently Amended) The method of claim 1, wherein the ~~prolactin-antagonist receptor antagonizing~~ domain comprises ~~the protein of~~ SEQ ID NO: 34.

62. (Previously Presented) The method of claim 1, wherein the amino acid at position 129 is a bulky side-chain-amino acid.

63. (Previously Presented) The method of claim 28, wherein the amino acid at position 129 is a bulky side-chain amino acid.

64. (Previously Presented) The method of claim 29, wherein said cancerous cells express prolactin receptors at a level greater than that of normal, healthy cells.

65. (Canceled)

66. (Currently Amended) The method of claim 29, wherein said ~~immunomodulatory domain~~ cytokine is IL-2.

67. (Currently Amended) The method of claim 29, wherein said ~~immunomodulatory domain~~ cytokine is IL-12.

68. (Currently Amended) The method of claim 29, wherein said ~~immunomodulatory domain~~ cytokine is IFN γ .

69. (Canceled)

70. (Previously Presented) The method of claim 51, wherein the amino acid at position 120 is a bulky side-chain amino acid.

71. (Previously Presented) The method of claim 51, wherein the amino acid at position 120 is an arginine.